

## WHAT IS CLAIMED IS:

1. A centrifugal governor for being incorporated in the horizontal diesel engines, comprising:
  - 5 a cylinder block including a cylinder transversely arranged and a crankshaft arranged perpendicular thereto;
  - a gear case provided in front of the cylinder block;
  - a fuel pump housed in the gear case toward the cylinder, the fuel pump including a fuel adjuster;
  - 10 a governor weight located toward the crankshaft;
  - a governor lever provided between the governor weight and the fuel pump, wherein the governor lever is pivoted to a pivot in such a manner as to rotate in a horizontal plane;
  - an idling-spring supporter extending from a middle part of  
15 the governor lever;
  - a speed-adjusting lever provided nearer the fuel pump than the idling-spring supporter, in such a manner as to enable the lever to rotate in a horizontal plane;
  - a main spring fixed to the speed-adjusting lever at one end  
20 and to the idling-spring supporter at the other end; and
  - an idling spring fixed to the lever at one end, and to the front wall of the gear case at the other end;
  - wherein the governor lever, when operated, applies a synthesized tensile force (STF) of the tensile forces (GS) of the main  
25 spring 4 and the tensile force (IS) of the idling spring to the fuel

adjuster of the fuel pump so as to increase the supply of fuel, and cause the governor weight to decrease the fuel amount by pushing down the fuel adjuster, so that a disequilibrium between the synthetic tensile force (STF) of the two springs and the governor  
5 force (GF) is utilized for increasing or decreasing the supply of fuel through the operation of the fuel adjuster;

wherein the idling spring spring-biases the governor lever to increase the supply of the fuel both in the non-load set and in the low-load set (LL), and decrease the fuel supply both in the high-load  
10 set (LH) and in the full-load set.

2. The centrifugal governor of claim 1, wherein the idle-spring supporter extends backward from a middle part of the governor lever in the form of letter-T, and wherein the  
15 speed-adjusting lever is positioned nearer the fuel pump than the idle-spring supporter in a horizontally rotative manner to support the governor spring.

3. The centrifugal governor of claim 1, wherein the  
20 governor lever comprises a first lever toward the weight, and a second lever toward the governor spring, both lever being pivotally supported by the pivot;

wherein the fuel-adjuster is connected to the seed-adjusting lever through the first lever, a torque-up device, the second lever,  
25 and the governor spring;

wherein the first lever is connected to the idle-spring and the governor weight, and the second lever absorbs the tension of the governor spring when the fuel supply is stopped at the full load set (4/4), thereby maintaining the governor spring motionless in the region of overload from the full load set (4/4) up to the torque-up position, and actuating the fuel adjuster through the first lever.

4. The centrifugal governor of claim 1, wherein the idling spring spring-biases the governor lever so as to increase the supply of fuel in the middle low load (LML), and causes it to stop the supply of fuel in the middle high-load set (LMH).

5. The centrifugal governor of claim 1, wherein the idling spring is constituted as a tension coiled spring having a hook engaged with a slot produced in the governor lever in such a manner that the hook is slidable in the slot in a direction in which the supply of fuel is increased.

6. The centrifugal governor of claim 1, wherein the idling spring is constituted as a tension coiled spring having a hook engaged with a pin erected on the governor lever in such a manner that the hook is slidable along the pin in either of the directions in which the supply of fuel is increased or decreased.